



UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER FOR PATENTS
P.O. Box 1450
Alexandria, Virginia 22313-1450
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/894,321	06/29/2001	Osamu Hori	210678US2SRD	7966
22850	7590	01/26/2005	EXAMINER THOMPSON, JAMES A	
OBLON, SPIVAK, MCCLELLAND, MAIER & NEUSTADT, P.C. 1940 DUKE STREET ALEXANDRIA, VA 22314			ART UNIT 2624	PAPER NUMBER

DATE MAILED: 01/26/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/894,321

Applicant(s)

HORI ET AL.

Examiner

James A Thompson

Art Unit

2624

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 29 June 2001.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-24 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-24 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 29 June 2001 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date _____.
- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: _____.

DETAILED ACTION

Information Disclosure Statement

1. No copy of Application Number 09/894,321, which was listed in the Information Disclosure Statement filed 4 January 2002, is present in the case file. It has therefore not been considered.

Specification and Drawings

2. Upon review, Examiner has not found anything wrong with either the specification or the drawings. However, given the length of said specification and the number of said drawings, Applicant is advised to carefully proofread the specification and inspect the drawings to ensure their accuracy.

Claim Rejections - 35 USC § 112

3. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

4. Claim 2 is rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

Claim 2 recites "wherein the extracted frame comprises a group of frames". The extracted frame referred to in claim 2 is the extracted frame of claim 1, upon which claim 2 depends, which recites "a frame extracted from a plurality of frames in a source video data". If there is only one frame initially extracted, then it is an inherent contradiction to state that a said extracted frame comprises a group of frames.

Art Unit: 2624

In claims 1-10, "frame" and "extracted frame" will be interpreted to mean either a single frame or a group of frames, which is consistent with the language of claims 1 and 2 and with the specification. However, Applicant needs to modify the language of the claims so that claim 2 is not inherently contradictory.

5. Claim 12 is rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

Claim 12 recites "wherein the extracted frame comprises a group of frames". The extracted frame referred to in claim 12 is the extracted frame of claim 11, upon which claim 12 depends, which recites "a frame extracted from a plurality of frames in a source video data". If there is only one frame initially extracted, then it is an inherent contradiction to state that a said extracted frame comprises a group of frames.

In claims 11-15, "frame" and "extracted frame" will be interpreted to mean either a single frame or a group of frames, which is consistent with the language of claims 11 and 12 and with the specification. However, Applicant needs to modify the language of the claims so that claim 12 is not inherently contradictory.

Claim Rejections - 35 USC § 101

6. 35 U.S.C. 101 reads as follows:

Whoever invents or discovers any new and useful process, machine, manufacture, or composition of matter, or any new and useful improvement thereof, may obtain a patent therefor, subject to the conditions and requirements of this title.

Art Unit: 2624

7. Claims 11-15, 22 and 24 are rejected under 35 U.S.C. 101 because the claimed invention is directed to non-statutory subject matter and the disclosed invention is inoperative and therefore lacks utility.

Claims 11, 22 and 24 recite "first information" and "second information" as the elements which comprise "[a]n article of manufacture". Mere information on a computer usable medium is not a process, machine, article of manufacture, or composition of matter, and is therefore non-statutory subject matter. Information on a computer usable medium regarding video data frames is non-functional descriptive material, and is therefore not patentable. Applicant is referred to MPEP §2106.IV.B.1, which discusses this in greater detail.

Further, while said first information may contain a specification of a location, said first information cannot in and of itself specify, in any active functional way, a location. Likewise, while said second information may contain a relation to a display time of the extracted frame, said second information cannot in and of itself relate, in any active functional way, to a display. Some form of computer code, physically embodied on a computer-readable medium is required in order for a computer to actively perform any functions. The information itself is inoperative, and therefore insufficient.

Claim Rejections - 35 USC § 102

8. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless -

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country,

Art Unit: 2624

more than one year prior to the date of application for patent in the United States.

9. Claims 1-3, 5, 11-13 and 16-20 are rejected under 35 U.S.C. 102(b) as being anticipated by Yogeshwar (US Patent 6,026,232).

Regarding claims 1 and 11: Yogeshwar discloses a computer usable medium (column 7, lines 61-67 of Yogeshwar) storing frame information (column 12, lines 28-33 of Yogeshwar). Said frame information comprises first information, described for a frame extracted from a plurality of frames (column 14, lines 26-30 of Yogeshwar), specifying a location of the extracted frame in the source video data (column 14, lines 34-37 of Yogeshwar); and second information, described for the extracted frame, relating to a display time of the extracted frame (column 14, lines 27-30 of Yogeshwar). In order to edit a specific frame of video data (column 14, lines 26-30 of Yogeshwar), said frame must be extracted. In order for a specific frame to have particular regions processed (column 14, lines 34-37 of Yogeshwar), the specific location of said extracted frame in the source video data must inherently be known and retained as information.

Further regarding claim 1: The article of manufacture of claim 11 performs the steps of the method of claim 1.

Regarding claims 2 and 12: Yogeshwar discloses that the extracted frame comprises a group of frames (figure 13 and column 14, lines 26-30 of Yogeshwar), and the first information comprises information specifying a location of the extracted group of frames in the source video data (column 14, lines 34-37 of Yogeshwar). Editing video data over a selected time period (figure 13 and column 14, lines 26-30 of Yogeshwar) would allow the user to select a group of frames since the selectable time

Art Unit: 2624

periods, such as shown in figure 13 of Yogeshwar, are longer than the time period of a single frame.

Regarding claims 3 and 13: Yogeshwar discloses describing, for the extracted frame, third information relating to the importance (priority) of the extracted frame (column 24, lines 1-6 of Yogeshwar).

Regarding claim 5: Yogeshwar discloses that the extracted frame comprises a frame extracted from a plurality of frames included in a temporal section of the source video data (column 14, lines 26-30 of Yogeshwar), and further describing fourth information specifying the temporal section (time period) of the source video data (column 14, lines 26-30 of Yogeshwar).

Regarding claims 16 and 17: Yogeshwar discloses an apparatus (figure 1A of Yogeshwar) comprising a unit (figure 1A(30(portion)) of Yogeshwar) configured to extract a frame from a plurality of frames in a source video data (column 14, lines 26-30 of Yogeshwar); a unit (figure 1A(30(portion)) of Yogeshwar) configured to create the frame information (column 14, lines 27-37 of Yogeshwar) including first information specifying a location of the extracted frame (column 14, lines 34-37 of Yogeshwar) and second information relating to a display time of the extracted frame (column 14, lines 27-30 of Yogeshwar); and a unit (figure 1A(30(portion)) of Yogeshwar) configured to link the extracted frame to the frame information (column 14, lines 58-64 of Yogeshwar).

The digital video and audio editing operations are controlled by a computer workstation (figure 1A(30) and column 8, lines 7-11 of Yogeshwar) which comprises a processor, ROM, RAM and other conventional computer components (column 7, lines 61-64 of Yogeshwar). The unit configured to extract, the unit

Art Unit: 2624

configured to create, and the unit configured to link are the corresponding portions of said workstation's processor and memories, along with the associated embodied computer code, that performs extraction, creation and linking.

In order to edit a specific frame of video data (column 14, lines 26-30 of Yogeshwar), said frame must be extracted. In order for a specific frame to have particular regions processed (column 14, lines 34-37 of Yogeshwar), the specific location of said extracted frame in the source video data must inherently be known and retained. Since the previously encoded data and the newly edited data are shown to the user for comparison (column 14, lines 58-64 of Yogeshwar), clearly the frame information and the extracted frame are linked.

Further regarding claim 17: The apparatus of claim 16 performs the method of claim 17.

Regarding claims 18, 19 and 20: Yogeshwar discloses an apparatus (figure 1A of Yogeshwar) comprising a unit (figure 1A (30(portion)) of Yogeshwar) configured to refer to frame information described for a frame extracted from a plurality of frames in a source video data (column 14, lines 26-30 of Yogeshwar) and including first information specifying a location of the extracted frame in the source video data (column 14, lines 34-37 of Yogeshwar) and second information relating to a display time of the extracted frame (column 14, lines 27-30 of Yogeshwar); a unit (figure 1A(30(portion)) of Yogeshwar) configured to obtain the video data corresponding to the extracted frame based on the first information (column 14, lines 61-64 of Yogeshwar); a unit (figure 1A(30(portion)) of Yogeshwar) configured to determine the display time of the extracted frame based on the second information (column 14,

Art Unit: 2624

lines 55-64 of Yogeshwar); and a unit (figure 1A(61) of Yogeshwar) configured to display the obtained video data for the determined display time (column 14, lines 61-64 of Yogeshwar).

The digital video and audio editing operations are controlled by a computer workstation (figure 1A(30) and column 8, lines 7-11 of Yogeshwar) which comprises a processor, ROM, RAM and other conventional computer components (column 7, lines 61-64 of Yogeshwar). The unit configured to refer, the unit configured to obtain, and the unit configured to determine are the corresponding portions of said workstation's processor and memories, along with the associated embodied computer code, that performs referring, obtaining and determining.

In order to edit a specific frame of video data (column 14, lines 26-30 of Yogeshwar), said frame must be extracted and referred to. In order for a specific frame to have particular regions processed (column 14, lines 34-37 of Yogeshwar), the specific location of said extracted frame in the source video data must inherently be known and retained. Since the video data at the determined display time (column 14, lines 55-61 of Yogeshwar) is displayed (column 14, lines 61-65 of Yogeshwar), it is inherent that said video data is obtained.

Further regarding claims 19 and 20: The apparatus of claim 18 performs the method of claim 19 and obtains the information disclosed in claim 20.

Claim Rejections - 35 USC § 103

10. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this

Art Unit: 2624

title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

11. Claims 4, 6, 9 and 14-15 are rejected under 35 U.S.C.

103(a) as being unpatentable over Yogeshwar (US Patent 6,026,232) in view of Fujita (US Patent 5,974,219).

Regarding claims 4 and 14: Yogeshwar does not disclose expressly that the first information comprises information specifying an image data file created from the video data of the extracted frame.

Fujita discloses information specifying an image data file created from the video data of an extracted frame (column 13, lines 11-14 of Fujita).

Yogeshwar and Fujita are combinable because they are from the same field of endeavor, namely digital video data processing. At the time of the invention, it would have been obvious to a person of ordinary skill in the art to create an image data file from the extracted video frame and specify an image data file, as taught by Fujita, said image data file specification being a part of said first information taught by Yogeshwar. The motivation for doing so would have been to reduce the time required for editing by saving the specific video cut to be edited (column 13, lines 16-18 of Yogeshwar). Therefore, it would have been obvious to combine Fujita with Yogeshwar to obtain the invention as specified in claims 4 and 14.

Regarding claim 6: Yogeshwar does not disclose expressly that said first information comprises information specifying an image data file created from the source video data of the

Art Unit: 2624

extracted frame, the image data corresponding to the extracted frame.

Fujita discloses information specifying an image data file created from the source video data of an extracted frame, the image data corresponding to the extracted frame (column 13, lines 11-14 of Fujita).

Yogeshwar and Fujita are combinable because they are from the same field of endeavor, namely digital video data processing. At the time of the invention, it would have been obvious to a person of ordinary skill in the art to create an image data file from the extracted video frame and specify an image data file, as taught by Fujita, said image data file specification being a part of said first information taught by Yogeshwar. The motivation for doing so would have been to reduce the time required for editing by saving the specific video cut to be edited (column 13, lines 16-18 of Fujita). Therefore, it would have been obvious to combine Fujita with Yogeshwar to obtain the invention as specified in claim 6.

Regarding claim 9: Yogeshwar does not disclose expressly that said first information comprises one of information specifying a location of the extracted frame among the plurality of frames and information specifying a location of image data within an image data file created from the source video data and stored separately from the video data, the image data corresponding to the extracted frame.

Fujita discloses information specifying a location of the extracted frame among the plurality of frames (figure 2(201) and column 9, lines 59-62 of Fujita) and information specifying a location of image data within an image data file created from the source video data and stored separately from the video data,

Art Unit: 2624

the image data corresponding to the extracted frame (figure 11 (1119) and column 22, lines 16-20 of Fujita).

Yogeshwar and Fujita are combinable because they are from the same field of endeavor, namely digital video data processing. At the time of the invention, it would have been obvious to a person of ordinary skill in the art to include information about the location of the extracted frame among the plurality of frames in the video data and the location of said extracted frame as image data stored separately in an image data file, as taught by Fujita. The motivation for doing so would have been reduce the time required for editing by saving the specific video cut to be edited (column 13, lines 16-18 of Fujita). Therefore, it would have been obvious to combine Fujita with Yogeshwar to obtain the invention as specified in claim 9.

Regarding claim 15: Yogeshwar does not disclose expressly storing the source video data and an image data file corresponding to the source video data of the extracted frame in addition to the frame information.

Fujita discloses storing the source video data and an image data file corresponding to the source video data of the extracted frame (column 22, lines 16-20 of Fujita).

Yogeshwar and Fujita are combinable because they are from the same field of endeavor, namely digital video data processing. At the time of the invention, it would have been obvious to a person of ordinary skill in the art to store an image data file corresponding to the extracted frame of the source video data along with said source video data, as taught by Fujita, in addition to said stored frame information taught by Yogeshwar. The motivation for doing so would have been to

Art Unit: 2624

reduce the time required for editing by saving the specific extracted video cut to be edited (column 13, lines 16-18 of Fujita). Therefore, it would have been obvious to combine Fujita with Yogeshwar to obtain the invention as specified in claim 15.

12. Claims 7-8 are rejected under 35 U.S.C. 103(a) as being unpatentable over Yogeshwar (US Patent 6,026,232) in view of Bozdagi (US Patent 6,252,975 B1).

Regarding claim 7: Yogeshwar discloses second information relating to the display time of an extracted frame (column 14, lines 27-30 of Yogeshwar).

Yogeshwar does not disclose expressly that said second information comprises information relating to such display time that a frame activity value during a special reproduction is kept substantially constant.

Bozdagi discloses information relating to such display time that a frame activity value during a special reproduction is kept substantially constant (column 6, lines 30-36 of Bozdagi).

Yogeshwar and Bozdagi are combinable because they are from the same field of endeavor, namely digital video data processing. At the time of the invention, it would have been obvious to a person of ordinary skill in the art to have the information relating to the display time be included in said second information, as taught by Yogeshwar, when the frame activity value during a special reproduction is kept substantially constant, as taught by Bozdagi. The motivation for doing so would have been to be able to obtain a satisfactory static representation of the overall global motion of the video using only a relatively few selected key frames (column 3, lines

Art Unit: 2624

29-35 of Bozdagi), thus reducing the amount of data required. Therefore, it would have been obvious to combine Bozdagi with Yogeshwar to obtain the invention as specified in claim 7.

Regarding claim 8: Yogeshwar does not disclose expressly describing fifth information indicating whether the extracted frame is reproduced or not.

Bozdagi discloses information indicating whether the extracted frame is a key frame or not (column 6, lines 36-41 of Bozdagi), and thus whether or not said extracted frame is reproduced or not (column 3, lines 32-35 of Bozdagi).

Yogeshwar and Bozdagi are combinable because they are from the same field of endeavor, namely digital video data processing. At the time of the invention, it would have been obvious to a person of ordinary skill in the art to include as fifth information in the frame information taught by Yogeshwar, information indicating whether the extracted frame is reproduced or not, as taught by Bozdagi. The motivation for doing so would have been to be able to obtain a satisfactory static representation of the overall global motion of the video using only a relatively few selected key frames (column 3, lines 29-35 of Bozdagi), thus reducing the amount of data required. Therefore, it would have been obvious to combine Bozdagi with Yogeshwar to obtain the invention as specified in claim 8.

13. Claims 21-22 are rejected under 35 U.S.C. 103(a) as being unpatentable over Yogeshwar (US Patent 6,026,232) in view of Fukuzawa (US Patent 5,933,807).

Regarding claims 21 and 22: Yogeshwar discloses a computer usable medium (column 7, lines 61-67 of Yogeshwar) storing frame information (column 12, lines 28-33 of Yogeshwar). Said frame

Art Unit: 2624

information comprises first information, described for a frame extracted from a plurality of frames (column 14, lines 26-30 of Yogeshwar), specifying a location of the extracted frame in the source video data (column 14, lines 34-37 of Yogeshwar); and second information, described for the extracted frame, relating to a display start time and a display time of the extracted frame (column 14, lines 27-30 of Yogeshwar). In order to edit a specific frame of video data (column 14, lines 26-30 of Yogeshwar), said frame must be extracted. In order for a specific frame to have particular regions processed (column 14, lines 34-37 of Yogeshwar), the specific location of said extracted frame in the source video data must inherently be known and retained as information.

Yogeshwar does not disclose expressly that said frames are sound frames extracted from a plurality of sound frames in source sound data.

Fukuzawa discloses extracting sound frames from a plurality of sound frames in source sound data (column 5, lines 9-15 of Fukuzawa).

Yogeshwar and Fukuzawa are combinable because they are from the same field of endeavor, namely the analysis of digital frame data. At the time of the invention, it would have been obvious to a person of ordinary skill in the art to extract sound frames, as taught by Fukuzawa, and store the associated information, as taught by Yogeshwar. The suggestion for doing so would have been that Yogeshwar also teaches that sound data is present in the video data frames (column 16, lines 41-46 of Yogeshwar) and can thus be processed as well. Therefore, it would have been obvious to combine Fukuzawa with Yogeshwar to obtain the invention as specified in claims 21 and 22.

Further regarding claim 21: The article of manufacture of claim 22 performs the method of claim 21.

14. Claims 10 and 23-24 are rejected under 35 U.S.C. 103(a) as being unpatentable over Yogeshwar (US Patent 6,026,232) in view of Lee (US Patent 5,500,680).

Regarding claim 10: Yogeshwar does not disclose expressly describing, for media data other than the source video data including the extracted frame, information specifying a location of the media data and information relating to a display time of the media data.

Lee discloses describing, for media data (caption text) other than the source video data including an extracted frame, information specifying a location of the media data (column 4, lines 25-28 of Lee) and information relating to a display time of the media data (figures 7A-7C and column 5, lines 44-50 of Lee).

Yogeshwar and Lee are combinable because they are from the same field of endeavor, namely video data processing. At the time of the invention, it would have been obvious to a person of ordinary skill in the art to describe information specifying the caption text data location and information specifying the caption text display time, as taught by Lee. The motivation for doing so would have been to allow a user to see the words which are stored as part of the video (column 2, lines 35-44 of Lee). Therefore, it would have been obvious to combine Lee with Yogeshwar to obtain the invention as specified in claim 10.

Regarding claims 23 and 24: Yogeshwar discloses a computer usable medium (column 7, lines 61-67 of Yogeshwar) storing frame information (column 12, lines 28-33 of Yogeshwar). Said frame

Art Unit: 2624

information comprises first information, described for a frame extracted from a plurality of frames (column 14, lines 26-30 of Yogeshwar), specifying a location of the extracted frame in the source video data (column 14, lines 34-37 of Yogeshwar); and second information, described for the extracted frame, relating to a display start time and a display time of the extracted frame (column 14, lines 27-30 of Yogeshwar). In order to edit a specific frame of video data (column 14, lines 26-30 of Yogeshwar), said frame must be extracted. In order for a specific frame to have particular regions processed (column 14, lines 34-37 of Yogeshwar), the specific location of said extracted frame in the source video data must inherently be known and retained as information.

Yogeshwar does not disclose expressly that said frames are text frames extracted from a plurality of text frames in source text data.

Lee discloses extracting text frames from a plurality of text frames in source text data (column 4, lines 6-12 of Lee).

Yogeshwar and Lee are combinable because they are from the same field of endeavor, namely video data processing. At the time of the invention, it would have been obvious to a person of ordinary skill in the art to extract text data frames, as taught by Lee, and store the associated information, as taught by Yogeshwar. The suggestion for doing so would have been that Lee combines the text frame data along with the video frame data (column 4, lines 6-8 of Lee) and Yogeshwar processes video frame data along with other associated types of frame data, such as sound data (column 16, lines 41-46 of Yogeshwar). Therefore, it would have been obvious to combine Lee with Yogeshwar to obtain the invention as specified in claims 23 and 24.

Further regarding claim 23: The article of manufacture of claim 24 performs the method of claim 23.

Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to James A Thompson whose telephone number is 703-305-6329. The examiner can normally be reached on 8:30AM-5:00PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, David K Moore can be reached on 703-308-7452. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

James A. Thompson
Examiner
Art Unit 2624

JAT
21 January 2005



THOMAS D
~~THOMAS~~ LEE
PRIMARY EXAMINER